

COST ringing in the New Year

It is that time of the year again when we look forward to exciting endeavours and to welcoming new challenges.

COST is cantering into 2011 with a bag full of ambitious hopes for what will be a very special year in its history. Celebrating its 40th anniversary, COST has decided to make 2011 a unique year with regard to increasing its visibility within the European scientific community, and among European and COST countries' policy makers.

We have come a long way since 1971 when 5 countries decided to face up to the scientific and technological challenges of a fast-changing Europe. Thanks to the long-standing tradition and excellence of COST, over 30 000 scientists are currently benefiting from completely bottom-up, multi-disciplinary networking opportunities, in Europe and beyond.

These scientists are COST's pride and are the drive behind European research excellence. Their cutting-edge work of today is laying the foundation for Europe's better, more innovative tomorrow.

This is why COST takes pride in the tremendous achievements and promising results of its COST Actions. 2011 will see us striving to place these results in the spotlight, through a series of special events and initiatives.

I would like to take this opportunity to give our warm welcome to the 30 newly approved Actions. They are the outcome of the March 2010 collection date and we firmly believe that they will be thriving cooperative scientific networks.

Talking about COST's excellence brings me to introducing this issue of our newsletter, which will feature a number of outstanding COST Actions and introduce some Early Stage Researchers and Domain Committee members. We hope you enjoy it.

Wishing you a happy New Year, we look forward to an exciting 2011 together with all of you!

Dr Ángeles Rodríguez-Peña

President of the COST Committee of Senior Officials



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Roland Pochet

DC Chair for COST Domain BMBS

■ **You were nominated as a COST Domain Committee (DC) member by your country. What was your motivation to stand for election as DC Chair?**

From my previous experience as Chair of COST Action B10, as member of the DC Chair for the COST Domain BMBS (2006-2010), and as member of EDAB (European Dana Alliance for the Brain), I gained experience and learned the importance of interdisciplinary research and the communication with the public. I realised and admired the high potential which COST has in its role within the European Research Area (ERA). I see a DC Chair as a key person working on such issues. I consider the position of DC Chair as unique, one which gives DC Chairs the invaluable opportunity to inspire and promote new approaches. From such a privileged position, I hope to generate and launch translational research and motivate the EU to bring new instruments to the implementation of the ERA in the future.

■ **How do you see the future and further evolution of COST?**

As we all know, COST is currently in a transition phase, but with the support of COST's new CSO President, Dr Ángeles Rodríguez-Peña, I see this as an opportunity to reposition COST and become the think tank from which European research innovation can emerge. COST should now actively work on this niche and avoid the pitfalls of being merely the continuation of FP7 Actions (e.g. Network of Excellence).

■ **What is your vision of Europe for the next 10 years?**

I am not a Eurosceptic; I consider Europe as the best instrument for maintaining peace and promoting research. Europe has the power to implement instruments which will increase social progress within its member states. Europe is the only partner able to negotiate with the USA and Asia. As such, the future of Europe is guaranteed and will reinforce its world position.

■ **When you have one free moment in your busy schedule, what is your preferred leisure activity?**

I like films; taking care of my two little adorable granddaughters, welcoming friends at home and cooking for them.



Name: Roland Pochet

Year and Place of Birth: 1947, Brussels

Nationality: Belgian

Country where I currently live: Belgium

Languages: French, English

Education: Msc in Chemistry, PhD in Biochemistry

Current profession: Professor of cell biology and histology at the Faculty of Medicine

Research experience: Enzymology, endocrinology, neurodegenerative diseases

When did you join COST? In 1999. I have participated in the following COST Actions: **B10 'Brain Damage Repair'** and **B30 'Neuroplasticity'**

Women Writers in History

Towards a New Understanding of European Literary Culture

By Dr Suzan van Dijk
 Chair of COST Action IS0901
 Researcher at the Huygens Instituut, The Hague

COST Action IS0901 in short

The main objective of Action IS0901 is to create a strong collaborative international research network and to produce a road map outlining future systematic collaborative research in European women's literary history.

The historiography of literature needs to be refreshed. In particular, women's contribution to European literary practice can and must be accounted for in a much more adequate way than current literary history does. This COST Action lays the foundations for an innovative European-scale approach to this issue. The neglect of women as cultural agents is indeed an international phenomenon, directly relating to gender inequality in modern societies. International cooperation is a valuable tool in demonstrating that women's growing presence since the middle age has paved the way for their entrance into the literary field during the 20th century.

This COST Action is preparing a path for collective research by organising a strong network of researchers from Europe and beyond. At the end of the Action this network will be ready to carry out a large European research programme which will contribute to a better-balanced picture of western and eastern Europe's cultural heritage.

For more information:

http://www.cost.eu/domains_actions/isch/Actions/women_writers_in_history

Just as women's role in modern society is a much debated question, **the presence of women as a force in history is also the subject of ongoing discussions**: did women play a role or not? COST Action IS0901 focuses on women as writers and on the role they may have played in the European literary landscape before the 20th century; that

is to say, before feminism had its initial impact and women started being granted the right to vote in most European countries. By approaching the question of women's literary participation from a transnational perspective, we are able to observe a considerable gap among different countries in the degree of scholarly attention dedicated to this topic.

In English-speaking countries there is a wider knowledge of female authors, who were plentiful and whose works have been uncovered in sophisticated biographical and bibliographical websites. Following these examples, researchers from other countries have also started 'archival digging' operations, in order to locate women authors' publications and evidence of the public's reception of their work. This information shows that often their writings were indeed appreciated, not only in their country of origin, but also abroad. This brings us to assert that **female authorship is clearly a transnational phenomenon**, linking countries together – and not just parallel in national histories. Gender-solidarity between women may even have gone beyond patriotic feelings. This phenomenon was earlier studied for feminism, but it might have concerned less radical women as well.

COST Action IS0901 'Women Writers in History' gathers researchers from 25 countries, each of them working on women's authorship for a given country or period. The core idea of the group is that all Action participants stock their research material in one unique online database called 'WomenWriters'. **All members of the group share their findings and provisional conclusions with the group. This provides an invaluable tool for tracking international connections, reception or influence.** According to needs expressed by the researchers, the database is being further developed into an advanced 'Virtual Research Environment'. Discussions about the use and possibilities of this digital tool are ongoing and were plentiful at the Training School, where twelve researchers – both young and more experienced – working together, experienced the advantage of collaboration in a virtual space.

Once all empirical data have been collated, these women writers' national and international influences will be further



The Dutch author Margareta Cambon-van der Werken.



A sculpture representing the Dutch-Swiss Isabelle de Charrière (1740 - 1805).



Portraits of the English author Ouida (1839 - 1908), pseudonym of novelist Maria Louise Ramè.



Portrait of the TWO Dutch novelists Betje Wolff and Aagje Deken.

analysed and studied within a larger context. The outcome will be important for both women and men – whether they learn about the importance of women in history when young in school, or at a later stage of life. For those who work on literary history, it is clear, even at this initial stage of our research, that [the conclusions will contradict the prejudices that are currently spread over this topic.](#)

As 'Women Writers in History' is an Action which started in 2009, it has obviously not yet reached its final conclusions. But highly interesting data are already being revealed for individual countries involved in the project: different researchers are perusing historical large-scale source material, and are discovering large, in some cases immense, numbers of female authors. They were considered in earlier centuries important enough for preserving their names and memories, in compilations that we now use as sources. Research is indeed ongoing, in order to also discover more about the [impact of these women authors' writing, as well as the links and networks in place between these writers.](#)

So far, the impact of this Action is most visible among specialised audiences, who are expected to play the role of mediator in reaching a wider public. An excellent example of this dissemination is, for instance, the Action's participation in the Ljubljana World Capital of Books event,

which showcased the importance of the international perspective that this Action adopts in studying the reception of women's literary works. The wish is to expand the impact of the Action to non-specialist audiences via intermediaries.

Another direct benefit of 'Women Writers in History' concerns the participation of young researchers: being members of this COST Action, they benefit from the [international context and scholarly discussions](#) within the project in view of submitting proposals for research funding within their own countries – where in some cases very little is known about women's early authorship.

The relevance of this COST Action can also be illustrated through specific cases, such as that of Isabelle de Charrière, an 18th-century Dutch woman who left her country for Switzerland and who published in French. Until recently such authors, working in between cultures and particularly women, remained at the margins of the literary world and were barely visible. This is no longer the case and Charrière is just one writer who has re-appeared now as a nodal point of the international literary world: the Swiss embassy in the Netherlands and the Dutch embassy in Switzerland use her example in order to strengthen their cultural ties.

Tanja Badalič, Wolfgang Kaltenbrunner and Begoña Regueiro are Early Stage Researchers (ESR) involved in COST Action IS0901, 'Women Writers in History'. COST interviewed them to discover how they became involved with the Action and how they see their future.

Tanja Badalič



How did you become involved in COST?

I started working as a young researcher at the Faculty of Arts, University of Nova Gorica (Slovenia) in October 2010, under the supervision of Dr Katja Mihurko Poniž. My research concerns the reception of European women writers in the 19th century in the Slovenian territory. I became involved in COST Action ISO901 during the International Symposium 'Women's Authorship and Literatures of Small Countries in the 19th Century' (Ljubljana, September 2010), organised by Dr Mihurko Poniž. There I met members of the COST Action, many of whom were working on research questions similar to mine. Having been nominated Management Committee (MC) substitute member for 'Women Writers in History', I participated in the 'Milestone 1 conference, Women Telling Nations' in November 2010 in Madrid, which brought my dialogue with the other COST Action members another forward.

Would you recommend other Early Stage Researchers (ESR) to become involved in COST? If so, why?

I would definitely recommend Early Stage Researchers to become involved in COST. It gives one the opportunity

to meet experienced researchers as well as other PhD students working within a similar context. Discussion and comparison of results takes place in an informal and friendly way, advice can be given and valuable information provided. I recently applied for a Short-Term Scientific Mission (STSM) - having the opportunity to participate could be a very challenging opportunity and advantageous experience.

What could COST do to attract more Early Stage Researchers?

My impression is that unfortunately in Slovenia there are not many students familiar with COST. Maybe COST should advertise its presence on student websites, or suggest that experienced researchers from Slovenia take part in COST Actions and then publish their experiences.

What will your future bring?

I expect to complete my thesis in 2014. It is, therefore, too early to speak about my future career. I will definitely take advantage of being an ESR in this COST Action, and then it will be time to find a position where I can continue working on women's authorship and European literary history – preferably in association with the colleagues that I have met and collaborated with during this COST experience.

Wolfgang Kaltenbrunner



How did you become involved in COST?

I am currently working on a PhD project investigating how innovation in research tools are related to changes in the research practices of literature scholars. I joined the COST Action ISO901 'Women Writers in History' because I consider it a very interesting opportunity to study the potential of digital technology for promoting literary studies. This project is also about

scholars in the humanities becoming acquainted with working in a virtual environment. This is something which their traditional academic education may not have prepared them for. It requires them to question not only the technological, but also the epistemic organisation of research, thus exemplifying a much larger societal process that is currently unfolding.

My role in the project is that of a participant observer: I keep track of the practical, technological, and epistemological problems that occur and then present them for explicit

discussion among Action members. In this position I have participated in a Working Group meeting in Turku and a conference in Madrid to 'monitor' how the Action members are using their digital tools. This is also how I became involved as a Trainer in the first Training School of the Action, which was held in October 2010. My 'neutral' point of view was very useful for the discussions held with the different participants.

What could COST do to attract more Early Stage Researchers?

As a strategy to attract more Early Stage Researchers and doctoral students, I would recommend that COST strengthen the system of Short-Term Scientific Missions (STSM). These STSMs provide independence from

immediate institutional frameworks, something that is urgently needed in the traditionally small-scale disciplinary landscape of the humanities.

What will your future bring?

I plan to finish my research in about two and a half years. On the one hand, I am trying to facilitate the use of digital technology by creating reflexivity on the part of the users. While on the other hand, this COST Action provides me with a rich ideal empirical case involving talented and experienced researchers from over 25 countries. Most importantly, the Action gives me the feeling that I am in contact with current developments in humanities research, which is a welcome alternative to the more solitary reading and writing which I do in libraries.

Begoña Regueiro



How did you become involved in COST?

I have been involved in COST Action IS0901 since the beginning of November 2009. I am also part of the Investigation Project 'LEETHI' from the Complutense University of Madrid, where I work with Prof Amelia Sanz, to whom I owe my involvement in this COST Action. Prof Sanz thought I would fit in with this Action because of my research topic, so I decided to join her at the very first meeting

of the Action which took place in The Hague in 2009. I immediately became involved in the preparation of the 'Milestone 1 conference, Women Telling Nations', which took place at the Complutense University of Madrid last November.

Would you recommend other Early Stage Researchers to become involved in COST? If so, why?

In my experience, COST has a lot to offer to young researchers. First of all, COST gives us the opportunity to meet the specialists in our investigation area and to engage in scholarly discussion with them. But we also meet other young researchers some of whom are working on questions very similar to our own, so that collaboration is really interesting. For instance, Tanja Badalič and I both work on French 19th-century women authors and their influence in our own country (Slovenia and Spain respectively). Hopefully we will have the opportunity to

collaborate next year, in a Short-Term Scientific Mission (STSM) together with a specialist in this field. This is how COST helps us to create networks that will be really useful for our future. Finally, the Training Schools also help us to continue learning and become familiar with new methods. For example, within this Action, we are stocking, sharing and analysing our research material using a Virtual Research Environment.

What could COST do to attract more Early Stage Researchers?

In my opinion, COST is a very attractive programme for Early Stage Researchers. Many Early Stage Researchers, at least in Spain, do not know very much about COST and feel unsure as to whether they can apply to the network by themselves. In my case, I am not sure if I would have dared without being invited by Prof Amelia Sanz and I can imagine that other Early Stage Researchers would have similar trepidations.

What will your future bring?

I completed my thesis in June 2009 and have, since then, been trying to find a permanent job in a Spanish University. The requirements are especially challenging these days; long experience, a long list of publications, as well as involvement within an international framework, are all necessary. My participation in this COST Action provides great help in this respect.

Argentina on board!

A new reciprocal agreement for COST



Argentina has now joined New Zealand, South Africa and Australia in a unique partnership which allows their researchers to be involved in networking opportunities with their European counterparts.

Reciprocal agreements address researchers involved in COST Actions and help them meet colleagues from COST countries involved in COST Actions; to learn from each other and to explore opportunities for working together.

COST Action scientists involving official participation from the reciprocal agreement countries are eligible to benefit from these funds mostly in the form of Short-Term Scientific Missions under a Reciprocal Agreement (RSTSM). An RSTSM must last between a minimum of five days and a maximum of three months, and the agreement covers travel and subsistence expenses to and within the host country.

Argentinean scientists are now able to participate in COST Actions through funding made available by the Argentinean Ministry of Science, Technology and Innovative Production's designated implementing agent, the National Direction of International Relations. Scientists from COST Countries – involved in COST Actions together with Argentinean counterparts – will be able to benefit from funds from the COST Office in order to embark on a RSTSM.

COST's reciprocal agreements with South Africa, New Zealand, Australia and now Argentina, create mutually beneficial cooperation opportunities for both COST countries' researchers and the research institutes of the countries that have signed the reciprocal agreement.

The reciprocal agreement with Australia has allowed 11 scientists from COST countries to benefit from the great opportunity of a RSTSM since June 2010.

COST scientists' recent missions to South Africa include the experience of Mr Paul Fiedler, a member of COST Action FP0902 'Development and Harmonisation of New Operational Research and Assessment Procedures for Sustainable Forest Biomass Supply'. Mr Fiedler is a researcher at the Research Institute for Traffic and Transport, University of Applied Sciences Wildau in Germany. The purpose of his visit to South Africa was linked to analysing the supply chain for bioenergy logistics in parts of the region. He was hosted by the Department of Forest and Wood Science at Stellenbosch University, which is currently working on a research project concerning logistics and bioenergy. Mr Fiedler is a member of COST Action FP0902 Working Group 4, 'System Analyses and Modeling in Forest Operation', and he affirmed that his RSTSM positively affected the efforts of the Working Group, his research activities as well as those of the South African partners.

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My RSTSM to South Africa positively affected the efforts of the Working Group, my research activities as well as the ones of the South African partners.

Mr Paul Fiedler
COST Action FP0902
Research Institute for traffic and Transport
University of Applied Science
Wildau, Germany

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The success of COST's reciprocal agreement with New Zealand can be summarised in the experience of Prof Brian Jordan, Professor of Plant Biotechnology at the Lincoln University, New Zealand. Prof Jordan is collaborating with COST Action FA0906 ('UV4Growth'), following his previous participation in COST Action 858 (Viticulture: Biotic and Abiotic Stress - Grapevine Defence Mechanism and Grape Development). Thanks to his involvement in this Action, Prof Jordan has been invited as visiting professor at the University Victor Segalen Bordeaux 2 and carry out research activities at ISVV, 'Institut des Sciences de la Vigne et du Vin', in Bordeaux, France.

Since the reciprocal agreement with Argentina has entered into force in May 2010, two participants of COST Action FP0905 have benefitted from this COST reciprocal agreement through a RSTSM. COST encourages participants of those Actions involving institutes from New Zealand, Argentina, Australia and South Africa to apply for a RSTSM, and contribute to opening the European Research Area (ERA) to scientific cooperation worldwide.

For more information on COST Reciprocal Agreements, please contact your Science Officer, or:

Ms Melae Langbein
Science Officer
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melae.langbein@cost.eu

http://www.cost.eu/about_cost/reciprocal_agreements

News from staff

- **Mr Leo Guilfoyle** was appointed Senior Administrative Officer for the Science in Society cluster as of September 2010.
- **Mr Adrien Routelous** took up the position of Financial Controller in September 2010.
- **Ms Charlotte Bouyssou** has accepted the temporary position of HR Assistant as of November 2010.
- **Dr Lucia Forzi** has taken up a new challenging position as Science Officer for the Chemistry and Molecular Sciences and Technology (CMST) Domain since December 2010.

Landscape in a changing world

At the 10th Anniversary of the European Landscape Convention (Florence Convention), COST and ESF launched their Science Policy Briefing 'Landscape in a Changing World – Bridging Divides, Integrating Disciplines, Serving Society'.

Announced in the framework of the 'Living Landscape' Conference, held in Florence on 18 October 2010, this Science Policy Briefing is the result of a series of workshops jointly organised by ESF and COST during 2008 and 2009. The goal of this initiative is to provide a platform for the development of a new interdisciplinary approach to landscape research, starting from the humanities perspectives.

The underlying concept of this initiative is that we all live not only in an environment and a physical reality, but also in our perception of it – in a landscape which includes both physical and mental components, both natural and cultural elements.

The experts involved in these workshops identified several major grand challenges which are embedded in the landscape that our society is currently facing. These are, among others: climate change, energy needs, health and safety issues, food security, urbanisation and migration.

The Science Policy Briefing focuses on how research on landscape can respond to our century's grand challenges. After analysing the current position of landscape research in European culture as well as economic, environmental and spatial policy, the Briefing aims to develop new concepts for integrating landscape research into policy and practice.

The major outcome of the discussions is that landscape research is now in a position to holistically address the main challenges in regard to the social and physical transformation of land, space and environment - looking at the past, the present and the future.

However, landscape research is still spread across many domains and its proponents are often divided by disciplinary barriers. The Briefing therefore stresses the need to enhance integrative approaches between human, social, natural and physical sciences. In recent decades, the importance of landscape and its integrative nature has been the object of research in very different disciplines, such as archaeology, cultural geography, ecology, environmental studies, historical studies, landscape

architecture, planning, psychology and sociology. The Science Policy Briefing would like to stress the idea that new structures are needed to achieve more integration through shared research programmes, and to identify a pathway towards fulfilling landscape's potential as a unifying concept for European research.

In the coming months, the Science Policy Briefing will be presented to other European and national policy-makers and to the society at large. This should further disseminate it and establish landscape research as an integrated research field – both in terms of its interdisciplinary character and its potential – and produce substantial social, economic and environmental benefits.

Further dissemination of the briefing is supported by the Individuals, Societies, Cultures and Health (ISCH) COST Domain Committee and the ESF Standing Committees for the Humanities (SCH) and for Life, Earth and Environmental Sciences (LESC).



For further information on this initiative, please contact:

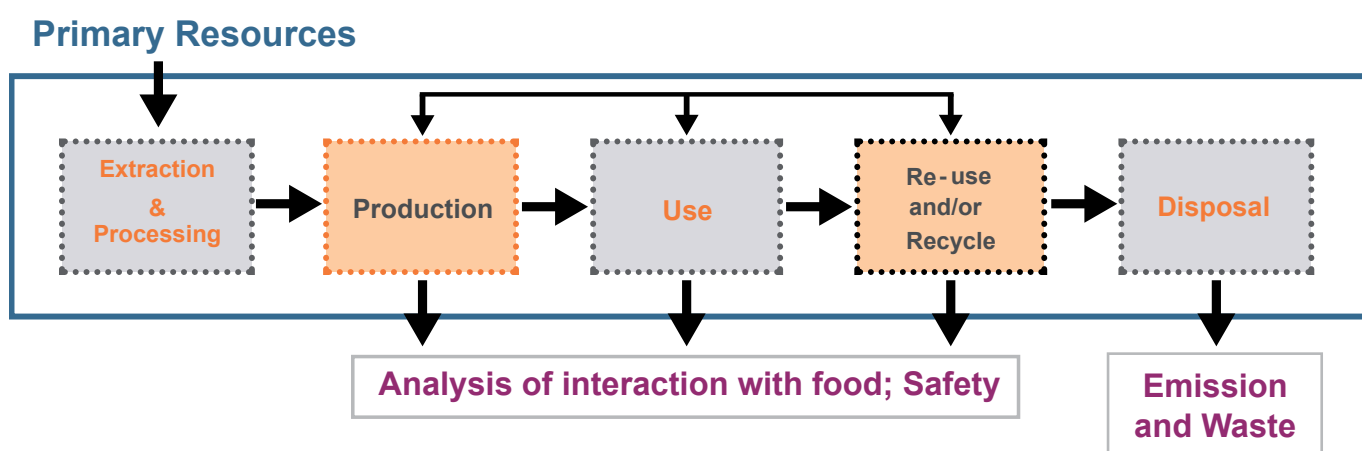
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Insight into COST FA Domain

Eco-sustainable Food Packaging Based on Polymer Nanomaterials

COST Action FA0904

Complete Life Cycle of the PNFP



Why is eco-sustainable food packaging so important and what is the motivation behind setting up this Action?

Since its inception in the 19th century, modern food packaging has made great progress in achieving improved food quality and safety. In times of globalised trade, food packaging requires increasing performances, together with increased safety, economical and environmental advantages. Consumers request transparency on the risks and benefits of related new technologies, while requiring no critical interaction with food, no production decrease, an ecological approach to waste, and a similarly ecological approach to energy input in the production and transport phases.

Polymer nanotechnology can address all these requirements and provides innovative materials with improved mechanical and barrier properties, such as 'improved polymer nanomaterials for food packaging' (PNFP), and antimicrobial characteristics such as 'Active PNFP'. These incorporate nanosensors for traceability and monitoring of food conditions during the transport and storage phase, while adding the sustainability factor.

Polymer nanomaterials for food packaging cover a strategic market field thanks to their promise for potential applications as high-performance materials. Projections for their applications reach 7.3 billion USD by 2014.

Most of the current applications are outside Europe. To be competitive, Europe must stimulate research and coordination in the area of the structure-properties relationship at the relevant length scale of nanoparticles, promoting the development of a harmonic standardisation system and contributing to managing the health, safety and environmental implications of PNFP.

Why was COST deemed useful to run this Action?

The successful development of PNFP has to overcome barriers in regard to safety, technology, regulation, standardisation, a trained workforce and technology-transfer. This challenging mix of issues requires a multidisciplinary cooperation approach.

A COST Action is the most appropriate instrument to strengthen links and to build a network between different research and industrial groups, facilitating communication

The Unique COST Action FA0904 Technology Network



and the transfer of expertise among groups that are scattered across Europe, while adding some non-European bodies in order to avoid duplication of research in several European countries.

Thanks to the open, flexible and unique characteristics of COST, the work plan can be modified as the body of knowledge grows, thereby allowing previously unforeseen activities and participants to be included at a later, implementation stage of the disciplinary perspectives.

What are the aims and objectives of the Action, planned activities and goals?

The Action's main goal is to establish an international scientific and technology network on issues related to eco-sustainable polymer nanocomposites food packaging for the preservation, conservation and distribution of high-quality and safe food. It aims to exploit the potentials of polymer nanotechnology in the area of food packaging, using a comprehensive approach, taking into account the demanding needs of users such as health, environment, taste cost, as well as the specific requirements of the food industry.

The Action will be looking at the complete life cycle of the PNFP, from the raw material selection to production, processing, products – including all related health and environmental aspects. This ambitious project will be carried out through the combined efforts of both leading research and industrial groups. Participants will identify the barriers preventing the successful development of PNFP in fields such as research, technology, safety, standardisation, trained workforce and technological transfer).

Activities planned during the Action life:

- Workshops and conferences open not only to the Action's participants, but also to external audiences. This will allow researchers and producers to be up-to-date with the developments in preparation and characterisation tools for safe PNFP.
- Summers schools and Short-Term Scientific Missions (STSM) to promote educational opportunities in Europe through dedicated activities where Early Stage Researchers (ESRs) will learn to understand how complementary knowledge is gathered so as to develop new concepts.
- Roundtable discussions dedicated to industry, in order to bridge the gap between science and technology, develop the most promising route to design new, safe PNFP, and to harmonise standardisation measures for a faster market penetration, and a stimulated science-society dialogue.

What are your hopes regarding the outcome of the Action and what would they bring to research already being carried out in this field? How will the Action affect people's lives?

The impact of the Action will focus on bringing together methodology, structure-characterisation techniques, properties, health and environmental considerations – in order to support the design of safe PNFP with controlled structure and properties.

This Action will ensure the maximum level of integration and become a source of excellence throughout the European Research Area (ERA) by creating synergies with other projects and structures operating in the same technical area.

Participants will benefit from the interdisciplinary nature of the Action, by strengthening their existing collaborations, establishing new ones, broadening the pool of instruments and the base of expertise, thereby significantly enhancing the research and training opportunities available to each member.

COST Action FA0904 will be an opportunity for young researchers to work with experienced, senior European scientists as well as industrial researchers on issues that embrace different frameworks of ideas and technologies.

Through its planned activities, this Action will act as an interface to bridge the gap between science and technology, and will contribute to the development of novel technologies which are indispensable for improving the quality of life and the environment. In addition, COST Action FA0904 will raise awareness among the general audience, regulatory bodies and administrations on the safe use, recycling and disposal of nanostructured materials and nanodevices for food packaging.



For further information on this COST Action, please contact:

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http://www.cost.eu/domains_actions/fa/Actions/FA0904



COST Action FA0904 Conference in Iasi, Romania, on 28 and 29 June 2010

UV-B Radiation for Sustainable Agriculture, Plant Biotechnology and Quality Food

Research into the effects of UV-B radiation on plant growth and development was kick-started by the discovery of the breakdown of the stratospheric ozone layer in the 1980s. Initially, many studies focused on the stress and growth retardation caused by very high levels of UV-B radiation. However, most modern studies emphasise the regulatory properties of realistic doses of UV-B, and especially their potential to regulate food quality, pharmaceutical properties, pest and disease resistance, and plant sturdiness (see image).

How do UV-B effects act on plants?

Regulatory UV-B effects operate across organisational levels. UV-B has been extensively reported to alter



Effects of UV-B radiation on colour and size of lettuce plants. Courtesy of Prof Nigel Paul, University Lancaster, UK.

gene-expression, and this is at least partially controlled through a UV-B specific signalling pathway. Altered gene expression is associated with, among others, the accumulation of flavonoids, tocopherols and polyamines, all nutritionally important metabolites. These metabolic changes are paralleled by morphogenic changes, which are thought to be due to a mixture of effects on the cell cycle and on cell elongation, and which may give rise to the production of more sturdy plants that can withstand handling and/or transport. The combined metabolic and morphogenic changes in turn, affect cross tolerances of plants to diseases and pests, as well as to other 'stressful' climatic factors. Indeed, UV-B is likely to play a role in determining the response of plants exposed to specific climate change conditions such as heat and drought. Thus, UV-B radiation is increasingly considered an environmentally relevant regulator of plant growth and development, and new and exciting opportunities for sustainable agriculture, plant biotechnology and food and nutritional industries are starting to arise.

UV4Growth: the COST answer

COST Action FA0906 'UV-B radiation: A Specific Regulator of Plant Growth and Food Quality in a Changing Climate' (UV4growth), was specifically established to strengthen the communication between research groups focused on either molecular, metabolic, physiological or organismal UV responses, thus stimulating the development of a more comprehensive understanding of the regulatory properties of UV-B radiation across disciplines and across national borders. COST Action UV4growth also aims to strengthen the communication between fundamental and applied research, as well as with stakeholders. A further important aim, for which a comprehensive research grouping is imperative, is the standardisation of UV-B exposure technologies. Small changes in either the UV spectrum or dose rate can substantially alter biological responses. Thus, standardisation of UV-B exposure technologies is vital in order to compare studies from different groups, and to exploit results. Moreover, increasing availability of novel types of spectroradiometers and novel light sources (LED) require a concerted assessment of usefulness.

The networking value of UV4Growth

COST Action FA0906 aims to generate knowledge on the fundamentals of plant growth, food quality, and plant-environment interactions by integrating nationally

and internationally funded research on UV-B mediated regulation of molecular, physiological, metabolic and ecological processes. The benefits of this COST Action include the creation of a stimulating research environment that leads to scientific breakthrough, further research collaborations and funding applications, an interdisciplinary, international training environment for Early Stage Researchers (ESR) and experienced researchers, a coordinated uptake of novel technological applications; and the development of standardised experimental routines.

The chief activities of UV4growth are: annual network meetings to develop an integrated vision of the role of UV-B in plant growth across a range of organisational levels; Short-Term Scientific Missions (STSM); 'vision' documents; a consolidated, transnational network of experts for further funding applications and the strengthening of ties with potential stakeholders. These include researchers, food and feed industry players, horticultural and agricultural enterprises, and policy-makers involved in environmental and agronomic management.

The impact of this COST Action will be reflected both within the scientific community and among our stakeholders who will gain a better understanding of the role of UV-B radiation in the context of sustainable agriculture, plant biotechnology and quality food.

For further information on this COST Action, please contact:

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http://www.cost.eu/domains_actions/fa/Actions/uv-b_radiation

Early Stage Researcher Portrait



George Anastasiades

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Meneou Marine Aquaculture Research Station

Department of Fisheries and Marine Research

Ministry of Agriculture, Natural Resources and Environment, Republic of Cyprus

How did you become involved in COST?

I was involved in COST Action 867 'Welfare of fish in European aquaculture' since September of 2006, when the Action was entering its 11th month of work. I was first informed about this Action by fellow researchers who were already involved. I then contacted the Cyprus Research Promotion Foundation, which is the COST National Coordinator in my country, in order to learn about the application procedure.

Did COST help you launch your career? If so, how?

The main objective of COST Action 867 is to bring together the relevant main stakeholders in the welfare of farmed fish at a European level; namely industry, regulatory bodies, and research institutions. In the context of the Action, I participate in the Management Committee and the Working Group 3 – which summarises the interests of the main stakeholder groups in fish welfare – in order to formulate recommendations, control systems and support tools for decision-makers in government and industry. During the annual meetings of the Action and the implementation of the different tasks, I had the opportunity to meet the majority of the European researchers involved in the welfare of farmed fish, and to learn about the different research studies that are currently being carried out. This

broadening of my network in the field of aquaculture gives me the opportunity to exchange a great deal of information on both the short-term research work that I am interested in and the research which I undertake within my current post at the Meneou Marine Aquaculture Research Station (MeMARS).

As a result of my contact with the other research institutes involved in COST Action 867, I have participated in four research project proposals that were submitted under several funding programmes – with partners from Greece, Italy, the Netherlands and Spain. In parallel with my work, I am carrying out a PhD at the University of Insubria, Italy, another institution involved in COST Action 867. This gives me the opportunity to have some extra meetings with my supervisor, Prof Marco Saroglia, during the annual COST Action meetings. The Action's activities are also a major opportunity for me to attend presentations, to participate in discussions and to work in the context of the Working Group 3 activities – which are equally important for the completion of my PhD studies. Finally, COST gave me the opportunity to benefit from a Conference Grant for Early Stage Researchers and to participate in the 'Acquacultura Med 2009' Conference, which took place in Verona in 2009. During the conference, I presented a poster on the ongoing research in MeMARS on the 'Mass culture of rabbitfish, *Siganus rivulatus*, a new species for the Cypriot aquaculture'.

Would you recommend other Early Stage Researchers to become involved in COST? If so, why?

Many Early Stage Researchers are participating in COST Action 867, and they contribute to the implementation of the Working Groups' objectives. Some of them also have key roles in the activities of the Action, such as participation in the Management Committee and the Short-Term Scientific Mission (STSM) Committee, thus contributing to the management of the Action. I believe that COST helps Early Stage Researchers start their 'maturation' in the community of different scientific sectors and to build strong foundations for a successful career. By participating in a COST Action, Early Stage Researchers have the opportunity to expand their network and develop personal relationships with other researchers and stakeholders in the same sector; to express their views and ideas about the subject of the Action; take initiatives for implementing the objectives of the Action in their countries; and be up-to-date with the latest developments in their research fields.

What could COST do to attract more Early Stage Researchers?

COST already offers unique benefits for Early Stage Researchers, such as STSMs and the Conference Grants, which can attract young researchers to participate in COST Actions. However, I believe that COST could provide a few more incentives to Early Stage Researchers that would attract a more active participation in the different Actions. For instance, compulsory organisation of Short-Term Training Schools (in the context of each Action), which would target each ESR's specialisation towards the subject in any given Action.

What will your future bring?

COST Action 867 is ending in March 2011 and hopefully I will have the chance to participate in another Action within my area of interest in the future. The experiences I gained in this COST Action have helped me to accomplish my short-term tasks, including the completion of my PhD studies at the end of 2010, and have facilitated my involvement in several other research projects.

For further information on COST Action 867, please visit:

http://www.cost.eu/domains_actions/fa/Actions/Welfare_of_Fish

What is behind Smell and Taste?

Systems Microbiology for Flavours and Fragrances Production

COST Action FA0907



Flavours and Fragrances (F&F) are highly important quality components in food, beverages, cosmetics, detergents and pharmaceutical products. Nowadays, most F&F molecules are produced by chemical synthesis or by extraction from plants. The need for environmentally friendly processes and the consumer's preference for natural products encourage research and development in alternative processes, such as the biotechnological production of F&F with microorganisms like yeast.

The fields of genomics, functional genomics, proteomics, protein and metabolic engineering of microbial and plant systems are currently making extraordinary steps forward. This knowledge will be the foundation of a truly sustainable biotechnology alternative for natural flavour production; an alternative that should have a strong impact in reorienting the agro-food and biotechnological industries to respond better to consumer needs.

'BIOFLAVOUR', also known as COST Action FA0907, has set up a 'European Yeast Flavour Network' for integrated research and development in the field of natural F&F. The main objective of this network is to increase knowledge and competitiveness of the different partners by sharing their expertise in a common research space. This is also an exceptional opportunity to strengthen links between industrial and academic research centres across Europe and beyond. From a scientific and technological point of view, BIOFLAVOUR aims at developing a fully and integrated understanding of the biochemical and molecular mechanisms of flavour compounds biosynthesis by microbial systems, through cutting-edge technological methods collectively known as a Systems Microbiology approach. The expected chief outcomes of this Action are the development of new microbial and/or biomolecular catalysts; the creation of novel eco-efficient bioprocesses

for the production of high added-value natural F&F compounds which will benefit the health of end-consumers and the environment; and the reinforcement of the competitiveness of the biotechnological industry in this field.

The kick-off meeting of this COST Action took place in Brussels on 7 June 2007. BIOFLAVOUR currently brings together 34 institutions and nine industrial companies from 21 countries.

This COST Action is organised into four interactive Working Groups:

- **WG1:** Biodiversity and High Throughput Screening for New Biocatalysts
- **WG2:** Functional Analysis of F&F Pathways by a Systems Biology Approach

- **WG3:** Engineering Strategies for F&F Production by Microbial Systems

- **WG4:** Tailored Bioprocesses for Natural F&F Production.

For further information on this Action, please contact:

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COST Office
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http://www.cost.eu/domains_actions/fa/Actions/yeast_flavour_production

COST in Montenegro

The first COST Information Day in Montenegro took place on 20 October 2010 in Podgorica. Leading scientists and young researchers from different Montenegrin research institutions in various scientific fields gathered for this event which was organised by the Ministry of Education and Science of Montenegro.

Montenegro is a young Balkan nation which became one of the non-COST neighbouring countries immediately upon proclaiming its independence in 2006. This first Information Day was created thanks to regular contacts between COST and the Ministry of Education and Science, in particular the Montenegrin National Contacts for the Framework Programme.

One of the aims of the Information Day was to encourage Montenegrin participation in COST Actions, positive examples of which are the two applications currently under evaluation from Montenegrin researchers to join COST Actions in the Information and Communication Technologies (ICT) Domain.

In the introduction, Prof Igor Radusinović, Deputy Minister for Science, Research and Technological Development,

and Mr Saša Ivanović from the Ministry of Education and Science stressed the importance of the COST programme for the internationalisation of all scientific research activity in Montenegro.

Prof Biljana Stojanović, COST CSO member as well as a former delegate of the COST Domain Committee Materials, Physics and Nanosciences (MPNS) and former COST Action MP0904 Management Committee Chair, gave a detailed overview of COST's past, present and future.

Svetlana Voinova, COST Office Coordinator for Balkan activities, also presented the status of Montenegro in COST, while explaining the international non-COST dimension, and available COST instruments in detail.

If you wish to learn more about COST in Montenegro, please contact:

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MOVE: coordinated research for tracking moving objects

COST Action IC0903

Knowledge Discovery from Moving Objects (MOVE)

Grant holder: University of Zurich

Participating countries: 20

Motivation behind the Action

Mobility is key in a globalised world where people, goods, data and even ideas move in increasing volumes, at increasing speeds, over increasing distances. Knowledge about movement is essential to substantiate decision-making in public and private sectors, in application domains as diverse as fleet management, transportation modelling, urban planning, tourism, wildlife ecology, spatial epidemiology, location-based services, flight or marine safety. Moving object data typically include trajectories of tangible objects (e.g. humans, vehicles, animals and goods), as well as trajectories of abstract concepts (e.g. spreading diseases, gaze points in eye movement tracking). Technologies for object tracking have recently become affordable and reliable and hence movement data are now generated in huge volumes on a routine basis. Despite this plethora of readily available tracking data, methods for extracting useful information are still immature, due to the fragmentation of research and the lack of comprehensiveness from monodisciplinary approaches. A COST Action can facilitate an improved method of networking which would overcome these limitations.

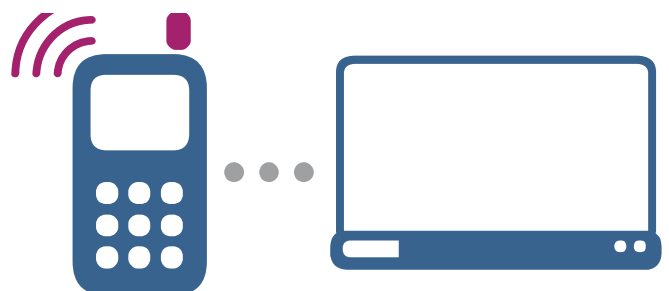
Why COST?

The past five years have seen an explosion of activities in movement research in ICT-related domains. However, much of today's research seems hectic and uncoordinated,

leading to an overlap or even redundancy. In order to deliver more meaningful ICT-based tools to practitioners and application scientists alike, a better coordination of research is indispensable. Means to achieve better coordination include; firstly, a better grounding of academic research in the requirements of decision making in industry and the public sector; and secondly, better networking between ICT researchers and researchers in application sciences (e.g. ecology, transportation modelling). MOVE is building a network of researchers to discuss and establish broad theoretical underpinnings, to develop and showcase methods for knowledge production from moving object data, thereby paving the way for related research projects at national and European levels. The focus on interactions supported by the network substantiated the choice of COST as preferred EU funding program.

COST Action IC0903's Working Groups

- **WG1:** Cross-WG Activities, Showcases, and Evaluation
- **WG2:** Representation of Movement Data and Spatio-temporal Databases
- **WG3:** Analysis of Movement and Spatio-temporal Data Mining
- **WG4:** Visual Analytics for Movement and Cognitive Issues



MOVE's objectives

Results of this COST Action are expected in the following areas:

- **Networking:** Cross-fertilisation between previously disparate disciplines, leading to breakthroughs impossible in a mono-disciplinary setting.
- **Links between ICT researchers and domain experts:** Facilitation of better methods for knowledge discovery responding to real needs, in novel application areas.
- **Better formal and theoretical grounding:** Formalisation of movement patterns for improved knowledge discovery techniques.
- **Improved tools for researchers:** Development of an annotated online bibliography of relevant multidisciplinary literature; a repository of reference datasets; and benchmarks and evaluation methodologies, allowing an improved comparability of methods developed in the ICT research community.
- **Education and training:** Creation of a new generation of researchers for Europe in an emerging research domain.
- **Showcases:** Better dissemination of research results to decision-makers, improved feedback to researchers.

Who will benefit from MOVE?

ICT researchers, including researchers in computer science and geographic information science, will benefit from this COST Action by being able to develop more efficient and effective methods for the modelling, storage and management of movement data. Domain specialists in relevant application domains will benefit by having access to ICT researchers who can develop novel and efficient techniques for dealing with massive amounts of movement data. Finally, decision-makers and practitioners in the industry and in the public sector will be able to experience, through the series of showcases, the potential of the methods developed in research projects related to this COST Action.

For further information on this COST Action, please contact:

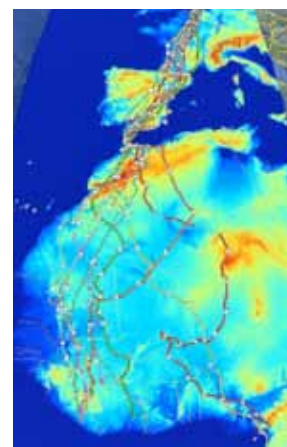
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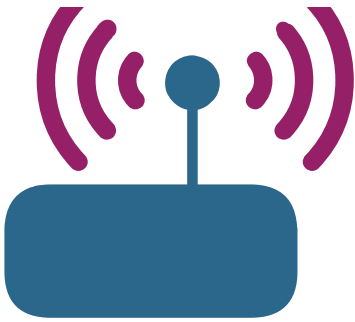
<http://www.move-cost.info/>



Participants of the First Summer School on Mobility, Data Mining, and Privacy, 27 August to 1 September 2010, Rhodes, Greece. Co-organised by COST Action IC0903 'MOVE' and the FP7-funded programme 'MODAP'.



Migration routes of honey buzzards tracked with a high resolution GPS system, © University of Amsterdam, IBED



Drawing the Wireless Networks of the Future: TERRA

COST Action IC0905

Economic Regulatory Framework for Radio Spectrum Access for Cognitive Radio/Software Defined Radio (TERRA)

Participating countries: 16

COST Action IC0905 (TERRA) started its activities with the kick-off meeting held on 7 May 2010. This Action aims at bringing together technical and economic experts for identifying viable usage scenarios and the favourable regulatory conditions for Cognitive Radio technology. Cognitive Radio is a new breed of radio communications devices that will be aware of their environment and could thus adjust their operational capabilities 'on the fly'. This will allow them to achieve maximum data throughputs while being capable of being deployed more easily, without costly prior planning. To the telecommunications consumers at large, this technology would mean availability of increasingly pervasive, more versatile and faster wireless services at ever lower costs.

The Cognitive Radio technology itself is currently being developed and trialled by many research consortia and various manufacturing companies. Yet the research into the socio-economic and regulatory aspects which would facilitate the uptake of this technology was largely missing. This new COST Action will fill this identified gap.

The ultimate goal of TERRA is to develop a comprehensive techno-economic regulatory framework outlining radio spectrum access rules for Cognitive Radio and provide assistance in the form of know-how to European regulators and regulatory/standardisation bodies; such as the European Conference of Postal

and Telecommunications Administrations (CEPT), the European Telecommunications Standards Institute (ETSI), and the European Commission. Depending on the progress, it might also succeed in feeding research ideas into the development of European Common Proposals on regulation of Cognitive Radio to the ITU World Radiocommunication Conference in 2012 (WRC12).

COST Action IC0905 TERRA enlists participants from 16 countries and cooperation agreements are being set up with industry consortia (the Wireless Innovation Forum) and individual research institutions in the USA and Canada.

COST Action IC0905's Working Groups

- **WG1:** CR/SDR Deployment Scenarios
- **WG2:** CR/SDR Co-existence Studies
- **WG3:** Economic Aspects of CR/SDR Regulation
- **WG4:** Impact Assessment of CR/SDR Regulation

For further information on this COST Action, please contact:

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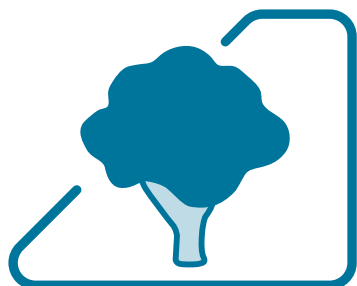
Meet the Domain Committee core group for the FPS Domain!

The FPS Domain Committee is one of the largest COST Domains. Divided into three Sector Groups (Forestry, Forest Products and Wood Technology), it represents the complete wood chain – from the management of a natural resource to the wood-based end products.

The Domain Committee, also known in COST terminology as 'DC', is responsible for the quality control (assessment of proposals, monitoring of progress, and evaluation of completed Actions) to maintain the excellence of COST Actions and to promote their results across Europe and beyond. It also monitors the implementation of its COST Actions to ensure that the objectives are met. The DC is also responsible for interaction with other relevant Domains and areas of interest, such as groups within the European Science Foundation (ESF), the European Commission, EUREKA and the Confederation of European Paper Industries (CEPI).

COST Actions active within the FPS Domain are involved in research within the following main areas:

- Biophysical basis of sustainable forest management
- Forest policies for people
- Forest products and the environment
- Forest products: properties and performance
- Process engineering in wood-based industries



Dr Giuseppe E. Scarascia-Mugnozza

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Professor

Director of the Department of Agronomy, Forestry and Land Use (DAF)

Agricultural Research Council of Italy (CRA), Rome, Italy

Research focus:

- Managing forests for carbon sequestration;
- Trees and forests responses to climate changes and increasing CO₂ concentrations;
- Structure and functions of Mediterranean and mountain forest ecosystems;
- Ecophysiological determinants of fast-growing tree species; Evaluation of genetic and physiological traits of natural populations of *Populus*.

My involvement in COST

I have always considered being part of the COST system as a very distinguished and fruitful scientific accomplishment. When I was called by the Italian Ministry of University and Research in 2005 to become national delegate for COST's FPS Domain, I was particularly honoured and glad for this opportunity. In the last few years the popularity and the interest of Italian forest-based sector researchers towards COST has grown considerably. This is thanks to the special role played by female scientists in such diverse fields as woody biomass biorefinery, biosafety of genetically-modified trees, impacts of pollution and climate change, wood and pulp technologies for a sustainable economy. Also, it is absolutely worth mentioning the importance and usefulness of the Short-Term Mission fellowships provided to young researchers: the return for COST visibility and knowledge within the scientific community provided by this 'scientific tool' is incredible and very rewarding.

Being also a member of the Core Group of the Life, Earth and Environmental Sciences Committee of the European Science Foundation (LESC-ESF), I have the great opportunity to witness first-hand the large potential for an even greater collaboration and synergy between ESF's LESC Committee and COST's FPS Domain – particularly so in the future in view of the ESF reform. It is an opportunity that calls for careful work and well – designed strategies that will, most probably, shape scientific cooperation in the European Research Area (ERA) of tomorrow.

Dr Katri Ots

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Senior research scientist

Institute of Forestry and Rural Engineering

Estonian University of Life Sciences, Tallinn, Estonia

Research focus:

The last 17 years of my scientific career have focused on the effects of air pollution – mainly the influence of alkaline cement dust and oil shale ash – on the growth and mineral nutrition of conifers (young, 2 to 10 year old, as well as 80 to 90 year old Scots pines and Norway spruces). In the past few years I have developed an interest in investigating forestation possibilities and, for example, the use of K- and P- rich contents ashes for tree growth improvement, on the cut-away peatlands.

My involvement in COST

I am a member of the Domain Committee for Forests, their Products and Services (DC FPS) since September 2010. The COST system is very successful for cooperation between scientists from different countries. Thanks to COST, researchers can network and exchange their knowledge and experience. COST seems to me also a great opportunity for young scientists, as they can benefit from valuable programmes such as COST's training schools. Before becoming a member of the FPS Domain Committee, my previous experience with COST dated back to 6 or 7 years ago. It seems to me that COST has now attained a significantly greater scope and level of popularity in the research community.

Dr Elena Bobu

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Professor

Department of Paper Engineering

Gheorghe Asachi Technical

University of Iasi, Romania

Research focus:

- Chemical processes in papermaking: neutral/alkaline sizing; wet-end chemistry phenomena; papermaking additives based on biopolymers;
- Paper and Board (P&B) recycling: impact of recovered paper quality on sustainability of P&B recycling; improving papermaking potential of recycled fibres; impact of paper recycling on the effectiveness of chemical additive systems; neutral de-inking;
- Environmental aspects of papermaking: process water management; papermaking fibres of non-wood plants; life cycle assessment of paper and board products.

My involvement in COST

I learned about COST in September 1998 at the '13th PTS-Symposium - Chemical Technology of Papermaking', from Leon Joore - the chair of COST Action E14, 'Towards zero liquid effluent in papermaking'. Following that event, in April 1999 I started my own involvement in a COST Action.

Active participation in subsequent eight COST Actions within the FPS Domain has become an important part of my professional life. This participation has also had an essential contribution to my career in the last 10 years, through the exchange of knowledge and experience, the establishment of relationships between our university and other research institutes, universities, industries, as well as other professional organisations across Europe. Other key elements that COST brought to my career were the opportunity of participation in high-level scientific events, the facilitation of training and research for young researchers through Short-Term Scientific Missions (STSM), publications and cooperation for proposals

within the EU's framework programmes FP5, FP6 and FP7, to name but a few. For example, COST Action E48, 'The Limits of Paper Recycling', was a real European cooperation that developed a strong network and set agreements for further cooperation beyond the Action, which have already materialised in activities such as the FP7 project 'SORT IT'.

COST Action E48 was one of our most challenging and fruitful Actions. Thanks to this opportunity, we were involved in unique activities such as chairing the Task Force 'Competitiveness of paper recycling, organising the 8th Joint Management Committee and Working Group meeting in Iasi and co-authoring of the book 'The Future of Paper Recycling in Europe – Opportunities and Limitations'. Beyond the final conference of the Action (held in May 2009), I agreed to be guest editor of a special issue of the journal 'Cellulose Chemistry and Technology-CCT', which featured 10 papers from COST Action E48 partners. This CCT issue is now being printed and will be available as of January 2010.

Dr Sjur Baardsen
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Associate Professor
Department of Ecology and
Natural Resource Management
Norwegian University of Life
Sciences, Norway

Research focus:

- Industrial economics;
- Rural development;
- Nature-based tourism.

My involvement in COST

COST connects researchers. It enhances the output from both basic and applied research activities through increased networking. As a former employee at the European Commission, I learned to look for the so-called

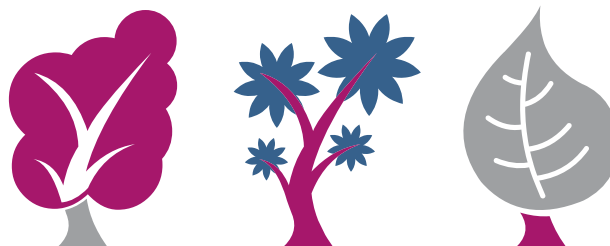
'European Added Value' – which has been COST's focus and stamp of quality from the very start, already 40 years ago. Synergy, making 'two plus two become three' arises from research cooperation itself, and is at its very best when applied in a completely bottom-up approach which at the same time encourages multi- and trans-disciplinary actions. This successful approach is highly appreciated by researchers all over Europe and beyond.

I think this will continue. When the development of the European Research Area (ERA) implies more and more coordination between countries, one may be tempted to think that this would make COST more or less redundant. This is incorrect. Although often designed through some form of bottom-up processes, the other instruments within the ERA tend to end up with coordinated priorities like the strategic research agendas of the research platforms and joint programming activities nothing bottom-up is left in these. Politicians simply avoid bottom-up systems because these cannot reflect political priorities; neither can they be controlled or otherwise manipulated. But, paradoxically, from time to time, politicians also recognise the importance of uncontrollable things like basic research and bottom-up research creation. It is therefore my hope and my belief that there will always be a space for COST as a true complement to the other ERA instruments.

For further information on the activities of COST's FPS Domain, please contact:

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http://www.cost.eu/domains_actions/fps



Read all about it

Every year COST helps to publish some 100 Action publications including final reports. Results featured in these books are often a source of inspiration for industry, policy-makers and other members of society. We have picked our selection for this edition of the newsletter.

Find out more about COST publications at:

<http://www.cost.eu/library/publications>



COST Action 358 – Pedestrians' Quality Needs Final Report

Final publication of COST Action 358

Authors: R. Methorst, H. Monterde i Bort, R. Risser, D. Sauter, M. Tight and J. Walker

ISBN: 978-0-9566903-0-2

Published: November 2010

The Pedestrians' Quality Needs Project (PQN) outlined people's needs in order to make an active decision to walk, rather than use other forms of transport. This summary provides an understanding of the pedestrians' needs and how they can be met and supported by policy.

This summary will help practitioners improve their understanding of how the management of public space, the transport network and the social, legal and political context interrelate in influencing pedestrian behaviour. This publication also aims at increasing the effectiveness of future policy in supporting and encouraging more walking, motivating relevant organisations to work collaboratively at a local level to ensure the full potential for more walking is realised. PQN also stimulates further research projects which will benefit pedestrians in Europe.

The main objective of COST Action 358 was to provide an essential contribution to systems knowledge of pedestrians' quality needs and the requirements stemming from those needs. This information will then underpin structural and functional interventions, policy making and regulation to support walking conditions throughout the EU and other involved countries.



The COST Manual of Laboratory Animal Care and Use – Refinement, Reduction, and Research

Final publication of COST Action B24

Editors: B. Howard, T. Nevalainen and G. Perretta

ISBN: 978-1-4398-2492-4

Published: November 2010

This manual presents perceived best practices for individuals and institutions working with animals. It provides readers with an overview on laboratory animal care options and advice on paths that should be avoided in this field. COST Action B24 offers the manual as a benchmark against which practices can be judged, and it is hoped in this way to provide a mechanism for the advancement of laboratory animal science at a time when the regulatory paradigm is changing in the same direction. The main objective of COST Action B24 was to increase knowledge necessary for both an ethically sustainable and a scientifically valid use of laboratory animals in research. These objectives reflect cost-benefit thinking - where costs should be minimised, and benefits maximised. The Action served as an interaction podium and idea generator for scientists and civil servants and paved the way for European research consortia.



Methodologies and Results in Grapevine Research

Final publication of COST Action 858

Editors: S. Delrot, H. Medrano, E. Or, L. Bavaresco and S. Grando (Ed)

ISBN: 978-90-481-9282-3

Published: November 2010

Grapevine is a crop of major economical interest, and wine represents a multicultural heritage which has been growing for thousands of years. Yet modern viticulture is facing several challenges, climatic change being one of them. Global climate change has increased berry sugar content (and the subsequent alcohol content of the wine) while the berrys' phenolic and aromatic ripeness are not always being achieved.

This book illustrates the recent progress made in ecophysiology, molecular and cell biology, and the pathology of grapevine, as well as in precision viticulture and berry composition. A combination of these new tools along with field observations will undoubtedly make it easier to face the challenges described above. These multidisciplinary contributions will be of interest to anyone involved in grapevine and wine activities.

The main objective of COST Action 858 was to increase knowledge of the biological phenomena involved during the key stages of grape ripening, defence against fungal diseases and resistance to drought, thus allowing significant improvement of viticultural practices during vine development and berry ripening.

Agenda

COST Seminar

Promoting Research Integrity in Europe - the Singapore Statement

Brussels, Belgium, 18 January 2011

The COST Office kick starts the 2011 COST Seminar series by looking at a matter of worldwide concern: Research Integrity. Tony Mayer and Professor Nicholas H. Steneck, Co-Chairs of the First and Second World Conferences on Research Integrity, will present the Singapore Statement and discuss how to promote research integrity to the highest level.

At this topic's Second World Conference, a key outcome was the agreement to the Singapore Statement which sets out 4 principles and 14 responsibilities which should be followed by researchers worldwide.

The globalisation of research and the increasing public scrutiny of researchers' behaviour – especially in terms of publications in scientific and scholarly journals – has made such an agreement even more crucial. The requirement for institutions, especially universities, to have policies and procedures in place for dealing with misconduct and for providing the education and training necessary for researchers is becoming paramount.

Tony Mayer joined the Nanyang Technological University (NTU), Singapore as its Senior Science Officer and Associate Registrar, working closely with the Provost, having acted as its Research Integrity Officer in 2007. Since 2009, Tony has continued to work for NTU as a consultant based in the UK. He is a member of the Euroscience Open Forum (ESOF) Supervisory Board and a member of the Euroscience Governing Board (2002-2006, and was recently re-elected). Tony Mayer is a geologist educated at the University of Manchester,

following which he undertook research on igneous rocks (both extrusive and intrusive – gabbros) at the University of Leicester and later, at University College London.

Professor Nicholas H. Steneck is Director of the Research Ethics and Integrity Program of the Michigan Institute for Clinical and Health Research, and Professor Emeritus of the History Science at the University of Michigan. He has been active in promoting and studying integrity in research for over 25 years.

More information:

<http://www.cost.eu/events/integrity>

External event

Water Scarcity Winter School 2011

Salzburg, Austria, 7 to 18 February 2011

The Z_GIS Winter School 2011 is dedicated to analysing, mapping and evaluating spatio-temporal water scarcity problems and is hosted by Salzburg University's Centre for Geoinformatics (Z_GIS). Participants with an interest in GIS, Remote Sensing and Hydrology are welcome to attend the short intensive course from 7 to 18 February 2011 in the world cultural heritage city of Salzburg.

Throughout a set of lectures, group work and practicals, the course focus on the climatological, hydrological and socio-economic processes and functions inherent in landscapes across Europe and related to water scarcity. Participants are provided with an overview of planning procedures (data acquisition, data preparation, data processing, and result interpretation) and gain skills to apply the theoretical framework.

Attendees will learn how to implement an early warning system against water shortage based on existing operational methodologies (e.g. Meteorisk) and to characterise main anthropogenic and natural defined surface water and groundwater systems. Participants will be guided from 'simple' discipline-oriented approaches to more sophisticated multidisciplinary, holistic methods aiming at an integrated assessment of water management and planning.

More information:

http://www.cost.eu/events/water_scarcity_winter_school_2011

COST-ESF Event

Cultural Literacy in Contemporary Europe: Synthesis Workshop

Brussels, Belgium, 11 February 2011

This workshop will draw conclusions of the four thematic workshops of the 'Cultural Literacy in Contemporary Europe' series.

Key thematic linkages between the four workshops include: the culture of testimony and its continuing significance, the electronic production of new forms of fictionality and their appeal, literature and literature-type art forms as a medium of cultural transfer and exchange, as well as the diagnosis of rhetoricity, fictionality, textuality and historicity in political, economical and scientific discourses.

The results of the workshops will be used to draft policy recommendations. The key policy areas to be targeted include translation policies, services and support in the public domain (including specifically the field of cultural heritage), improvement of health services through critical

reflection and analysis of their cultural characteristics, and stabilisation of educational services (in both lower and higher education) by integrating cultural literacy fully into the basic curricula of each discipline.

More information:

<http://www.cost.eu/events/literacysynthesis>

External Event

Shrinkage in Europe; causes, effects and policy strategies

Roeterseiland, Amsterdam, the Netherlands, 16 and 17 February 2011

COST Action TU0803 – Cities Regrowing Smaller – organises a conference that looks at all aspects of shrinkage with the aim to present and discuss local experiences and research.

Within both the academic world and political debates, shrinkage has become a pressing problem in many parts of Europe. The severity of shrinkage and the time span in which shrinkage is occurring differs among the different parts of Europe. Even though the amount of literature on shrinkage is increasing, it remains difficult to pinpoint the exact causes and consequences of shrinkage.

For more information on the abstract submission and registration deadlines, as well as information on the programme, fees and keynote speakers, please consult the event website.

More information:

<http://www.cost.eu/events/shrinkage>

COST Strategic Workshop

Foresight on Future Demand for Forest-based Products and Services: Scenario Building

Barcelona, Spain, 22 and 23 February 2011

The aim of the COST Strategic Workshop series 2010-2011 is to carry out a wide-angle foresight exercise on the future demand for multiple forest-based products and services. The project combines expert workshops and a collection of data and perceptions by means of internet-based tools.

This workshop is a follow-up to the workshop arranged in Vienna in September 2010 inviting experts from the forest sector and related sectors with experience on foresight exercises.

This one and a half-day workshop is structured with key notes and interactive sessions. The workshop will introduce scenario building methods and tools, examine expertise and practices gathered already. It will also feature inclusive and interactive working sessions further elaborating the material collected in the Vienna workshop and the internet survey. The aim of the scenario workshop is to produce three to four scenarios (up to year 2050) for the demand for forest products and services. The outcome of the workshop will be opened for feedback from a wide range of stakeholders in a second round of internet-based sessions in March-April 2011. The project will result in a definition of future research orientations, and the information gathered will be available for further exercises. Results will be disseminated to policy and decision makers in two conferences in the autumn 2011.

The workshop in Barcelona is on invitation only, but the internet-based sessions are targeted to a wide audience and representatives of research, business, NGOs as well as policy and decision making organisations.

More information:

<http://www.cost.eu/events/Forestry-Foresight-Scenario-Building>

COST-ESF Event

'Responses to Environmental & Societal Challenges for our Unstable Earth' (RESCUE) Stakeholders Conference

Hungarian Academy of Sciences, Budapest, Hungary, 9 and 10 March 2011

COST and ESF will gather, in Budapest, the key stakeholders to discuss the European response to grand challenges in sustainability research.

Speakers will include RESCUE leaders, ESF and COST representatives, representatives from the local Authorities, and from European institutions.

The topics discussed will range from sustainability governance to results of the RESCUE Working Group activities.

More details on this workshop will shortly be published on the COST website.

More information:

<http://www.cost.eu/events/rescue2>

COST Exploratory Workshop

Quantitative Nanostructure-Toxicity Relationship (QNTR)

Vaeshartelt Castle, Maastricht, the Netherlands, 3 to 6 April 2011

The aim of the workshop is to bring together leaders in the emerging field of computational nanotoxicology to form an international Community of Practice for accelerated development of the science of QNTR.

The workshop involves policy makers, relevant COST Actions as well as experts from institutions, ranging from the European Commission's Joint Research Centre to the Australian Commonwealth Scientific & Industrial Research Organisation.

The deliverables from the workshop are a 10-year plan defining steps to produce software based on QNTR for predicting the health effects of manufactured nanomaterials useful for regulation and industry (to be written as a peer-reviewed publication); and a COST Action to support the international Community of Practice, specifically through the exchange of staff between key laboratories in order to fast-track international efforts in QNTR.

More information:
<http://www.cost.eu/events/qntr>

External Event

GraphITA

Assergi, L'Aquila, Italy, 15 to 18 May 2011

COST is a knowledge partner for the programme development of this multidisciplinary and intersectorial European Workshop on Synthesis, Characterisation and Technological Exploitation of Graphene. COST will be participating in the speakers' panel, and in the evaluation of the poster prize. The participation of the Nobel Prize Winner 2010 in Physics, Dr Konstantin Novoselov, is supported by COST.

GraphITA is held at the facilities of the Gran Sasso National Laboratories, one of four Italian national laboratories, embedded in the magnificent natural landscape of the Gran Sasso National Park. It is the largest underground laboratory in the world for experiments in particle physics, particle astrophysics and nuclear astrophysics. It is used as a worldwide facility by scientists, presently 750 in number, from 22 different countries, working on about 15 experiments.

The topics discussed will encompass growth and synthesis, investigation of fundamental physical properties, structuring and tailoring of electronic and transport properties and electronic and opto-electronic nanostructured devices, design and applications. Further discussions will aim at targeting mechanical, chemical and biological sensing devices and applications, energy storage and harvesting (devices and applications) as well as chemistry on graphene. The programme of the event will be released in the coming months.

More information:
<http://www.cost.eu/events/graphita>



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Links

Website links were correct at time of publication, but may since have changed.

Agenda information

To the best of our knowledge, agenda information was correct at the time of writing although changes may occur. For up-to-date information on COST Events please also visit:
<http://www.cost.eu/events>

About COST

COST is an intergovernmental European framework for international co-operation between nationally funded research activities. COST creates scientific networks and enables scientists to collaborate in a wide spectrum of activities in research and technology.

For further information please visit
<http://www.cost.eu>

COST Exploratory Workshop

Biofilms: Friend or Foe

Berlin, Germany, 22 and 23 June 2011

Researchers and industry representatives from different disciplines such as biochemistry, engineering, microbiology, physics, computer science and surface science will be brought together in order to integrate their contribution and thereby increase the understanding of biofilm development and to explore the potential beneficial applications of biofilms.

The workshop will focus on cell signalling (within a biofilm and cross-kingdom interactions) and on novel biotech and bioengineering applications (medical, environmental, agricultural and industrial).

The workshop will promote the need to form a new collaborative network in the field of biofilms.

Stakeholders involved in this event will include: universities, research institutes, both COST and non-COST participants, and medical doctors. The workshop will also be attended by representatives of the agri-food, chemical and pharmaceutical industries.

More information:

<http://www.cost.eu/events/Biofilms>



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